

2300 Lake Elmo Drive
Billings MT 59105

July 17, 2003

TO: Environmental Quality Council
Director's Office, Dept. of Environmental Quality
Montana Fish, Wildlife & Parks

Director's Office
Parks Division
Fisheries Division
Wildlife Division

Lands Section
Design & Construction
Legal Unit
Regional Supervisors

Montana Historical Society, State Preservation Office
Janet Ellis, Montana Audubon Council
Montana Wildlife Federation
Montana State Library
George Ochenski
Montana Environmental Information Center
Wayne Hirst, Montana State Parks Foundation
Montana Parks Association (land acquisition projects)
Bob Harrington, DNRC Area Manager, Southern Land Office
County Commissioners
Other Local Interested People or Groups

Ladies and Gentlemen:

The enclosed draft Environmental Assessment (EA) has been prepared for trail renovation and back wall stabilization at Pictograph Cave State Park, and is submitted for your consideration. Questions and comments will be accepted until August 23, 2003.

If you have questions or need additional copies of the draft EA, please contact Montana Fish, Wildlife & Parks at 247-2940. We welcome your comments, including letters of support. Please send any written comments to the following address:

Terri Walters
Pictograph Cave State Park Renovation and Development
2300 Lake Elmo Drive
Billings MT 59105 or
twalters@state.mt.us

Thank you for your interest,

Harvey E. Nyberg
Regional Supervisor

Pictograph Cave State Park Back Wall Protection Project Environmental Assessment

PART I. PROPOSED ACTION DESCRIPTION

- 1. Type of Proposed Action** Development and Renovation
- 2. Name of Project** Pictograph Cave State Park Back wall Protection Project
- 3. Names, Address and Phone Number of Project Sponsor**

Fish, Wildlife & Parks
Region 5
2300 Lake Elmo Drive
Billings, MT 59105
(406)247-2955

- 4. If Applicable:**

Estimated Construction/Commencement Date: August 2003

Estimated Completion Date: August 2004

Current Status of Project Design (% complete): ADA Trail Design is 90% Complete,
Backfill 25%

- 5. Location Affected by Proposed Action (county, range and township)**

Yellowstone County, T1S, R27E, Sections 19 & 20

- 6. Project Size: Estimate the number of acres that would be directly affected that are currently:**

(a) Developed:
residential..... acres
industrial acres

(b) Open Space/Woodlands/
Recreation..... 2 acres

(c) Wetlands/Riparian
Areas acres

(d) Floodplain..... acres

(e) Productive:
irrigated cropland acres
dry cropland acres
forestry acres
rangeland acres
other acres

7. Map/site plan:

See Map Attachment

8. Narrative summary of the proposed action or project including the benefits and purpose of the proposed action.

This proposed action is directed by the Pictograph Cave State Park Management Plan, adopted by FWP in 2003. The proposed actions include upgrading the trail to increase accessibility to the visitor plaza and backfilling a portion of Pictograph Cave to test its impact on controlling the seepage of groundwater into the cave. The goal of this project is to reduce the amount of moisture in the cave.

A portion of the trail will be improved from the parking lot to the visitor plaza; this will facilitate viewing for people not willing or able to make the entire climb to the main cave. The development of the plaza will also serve as an interpretive area for groups visiting the park. The plaza will be renovated to a uniform surface, as it is currently uneven and has a variety of surface materials (sandstone rock, gravel, dirt and blacktop) that make it difficult for use by some visitors.

The cave will be partially backfilled. Stability of the back wall has long been an issue of concern. The original excavation of the cave removed many feet of material from against the wall. Groundwater discharges have caused the wall to deteriorate due to rock sloughing from the surface allowing minerals to deposit over the rock art. A task force from the Management Planning Team has developed a proposal to partially backfill the cave in order to test whether backfilling aids in drainage, helps physically stabilize the wall and slows unwanted deposition on the wall. An attachment is included that describes the backfill project in detail.

9. Description and analysis of reasonable alternatives:

No Action Alternative: If no improvements are made to the site, further deterioration may occur and valuable site potential will not be reached. Access will continue to be difficult and possibly unsafe, resulting in use at a lower level than desired.

Project as Proposed: Our preferred alternative. The site would be more accessible to a wider group of users. The resources of the site would be protected and preserved for generations to come. The improvements will allow Fish, Wildlife and Parks to better interpret, manage, and protect the site resources while providing for a safer environment. Actions recommended in the Management Plan call for protecting and providing visitor services at Pictograph Cave State Park.

10. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits:

<u>Agency Name</u>	<u>Permit</u>	<u>Date Filed/#</u>
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(b) Funding:

<u>Agency Name</u>	<u>Funding Amount</u>
National Trust for Historic Preservation	\$1,000
National Park Service	\$5,000
Federal Dept of Transportation	\$4,000(Trails grant)

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
State Historic Preservation office	Consultation on cultural impacts

11. List of agencies consulted during preparation of the MEPA Checklist:

State Historic Preservation Office
Montana Historical Society
1410 8th Avenue
Helena, MT 59620

Montana Bureau of Mines and Geology
1300 N. 27th
Billings, MT 59101

Mountain Plains Office
National Trust for Historic Preservation
535 16th Street, Suite 750
Denver, CO 80202

Heritage Partnerships Program
National Park Service
Intermountain Support Office
12795 W. Alameda Parkway
Denver, CO 80225-0287

PART II. MEPA CHECKLIST

PHYSICAL ENVIRONMENT

1. LAND RESOURCES Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Soil instability or changes in geologic substructure?			X			
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?					X	
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?					X	
f. Other		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- 1a. Re-routing the trail from the parking area to the interpretive plaza will disturb the soil. The majority of this area has previously been disturbed.
- 1b. Re-routing the trail. Care will be taken to minimally disturb the soil and to replant with native vegetation.
- 1e. Safety precautions will mitigate the majority of hazards. Hazards will only take place during construction.

➤

Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

📄

Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

⚡

Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

📄📄

Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PHYSICAL ENVIRONMENT

2. AIR Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))			X			
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X*				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. For P-R/D-I projects, will the project result in any discharge which will conflict with federal or state air quality rags? (Also see 2a)		X				
f. Other		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Air Resources (Attach additional pages of narrative if needed):

2a. Machinery used to complete the improvements may emit temporary air pollutants. This activity will cease upon completion of the project(s).

2c. Goal of this project is to reduce the flow of moisture inside the cave. The climate will not be impacted.

➤

Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

📄

Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

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Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PHYSICAL ENVIRONMENT


3. WATER Will the proposed action result in:	IMPACT ³				Can Impact Be Mitigated ³	Comment Index
	Unknown ³	None	Minor ³	Potentially Significant		
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X				
b. Changes in drainage patterns or the rate and amount of surface runoff?			X			
c. Alteration of the course or magnitude of flood water or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. For P-R/D-I , will the project affect a designated floodplain? (Also see 3c)		X				
m. For P-R/D-I , will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a)		X				
n. Other:		X				


Narrative Description and Evaluation of the Cumulative and Secondary Effects on Water Resources (Attach additional pages of narrative if needed):

3b. During construction the run off patterns may be impacted. There will be no long-term changes.

³ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

 Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

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PHYSICAL ENVIRONMENT


4. VEGETATION Will the proposed action result in:	IMPACT ³				Can Impact Be Mitigated ³	Comment Index
	Unknown ³	None	Minor ³	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?					X	
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?		X				
f. For P-R/D-I , will the project affect wetlands, or prime and unique farmland?		X				
g. Other:		X				


Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

4a. Construction may eliminate natural grasses and vegetation in the area of disturbances. Areas of disturbance will be replanted with natural grasses. The park is currently posted for visitors to stay on designated pathways.


³ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

 Include a narrative description addressing the items identified in 12.8.604-1a (ARM)





 Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

 Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

PHYSICAL ENVIRONMENT

 5. FISH/WILDLIFE Will the proposed action result in:	IMPACT ⁹				Can Impact Be Mitigated ⁹	Comment Index
	Unknown ⁹	None	Minor ⁹	Potentially Significant		
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. For P-R/D-I , will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)		X				
i. For P-R/D-I , will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)		X				
j. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

-  Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
-  Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
-  Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
-  Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

B. HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS Will the proposed action result in:	IMPACT ³				Can Impact Be Mitigated ³	Comment Index
	Unknown ³	None	Minor ³	Potentially Significant		
a. Increases in existing noise levels?			X			
b. Exposure of people served to nuisance noise levels?			X			
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

6a. Noise will be emitted during construction due to the use of equipment. Once construction is complete noise will cease.

6b. During construction the use of equipment may create noise. This will cease following completion of the project(s).

7. LAND USE Will the proposed action result in:	IMPACT ³				Can Impact Be Mitigated ³	Comment Index
	Unknown ³	None	Minor ³	Potentially Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Other: _____		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- 3 Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ⌘ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ⌘⌘ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

8. RISK/HEALTH HAZARDS Will the proposed action result in:	IMPACT ³				Can Impact Be Mitigated ³	Comment Index
	Unknown ³	None	Minor ³	Potentially Significant		
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?					X	
d. For P-R/D-I , will any chemical toxicants be used? (Also see 8a)		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

8c. The use of safety equipment will mitigate the potential of workers being harmed. Proper safety precautions will be taken.

9. COMMUNITY IMPACT Will the proposed action result in:	IMPACT ³				Can Impact Be Mitigated ³	Comment Index
	Unknown ³	None	Minor ³	Potentially Significant		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- 3 Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- 3 Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- 3 Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- 3 Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

10. PUBLIC SERVICES/TAXES/UTILITIES Will the proposed action result in:	IMPACT ⁹				Can Impact Be Mitigated ⁹	Comment Index
	Unknown ⁹	None	Minor ⁹	Potentially Significant		
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?			X			
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased used of any energy source?		X				
e. Define projected revenue sources		X				
f. Define projected maintenance costs.			X			
g. Other:		X				


Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

10b. POSITIVE IMPACT -It is hoped that by improving and renovating Pictograph Cave State Park, out of area visitation will increase and visitors will spend more time at the park. This would have a resultant positive effect on tourist related expenditures in the Billings community.

10f. Maintenance costs will be minimal and absorbed into the existing park operations budget.

⁹ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

 Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

 Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

 Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

11. AESTHETICS/RECREATION Will the proposed action result in:	IMPACT ³				Can Impact Be Mitigated ³	Comment Index
	Unknown ³	None	Minor ³	Potentially Significant		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report)			X			
d. For P-R/D-I , will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c)		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

11c. The quality and quantity of the recreation at this site will be altered. Both will be positively impacted due to the improvements, allowing a greater number of visitors access to the site.

- 3 Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- ☒ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ☒☒ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

12. CULTURAL/HISTORICAL RESOURCES Will the proposed action result in:	IMPACT³				Can Impact Be Mitigated³	Comment Index
	Unknown³	None	Minor³	Potentially Significant		
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?		X*				
b. Physical change that would affect unique cultural values?				X		
c. Effects on existing religious or sacred uses of a site or area?		X				
d. For P-R/D-I For P-R/D-I, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a)				X		
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

12a. Archaeologists will be consulted no all phases of restoration and construction.

12b. POSITIVE IMPACT –The project is designed to promote the preservation of the site and the rock art on the cave wall.

12d. These projects are designed to preserve and protect the resources of Pictograph Cave State Park.

- 3 Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- 1 Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- 4 Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- 44 Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

HUMAN ENVIRONMENT

13. SUMMARY EVALUATION OF SIGNIFICANCE	IMPACT ⁹				Can Impact Be Mitigated ⁹	Comment Index
	Unknown ⁹	None	Minor ⁹	Potentially Significant		
Will the proposed action, considered as a whole:						
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. For P-R/D-I , is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e)		X				
g. For P-R/D-I , list any federal or state permits required.		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- 9 Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- 10 Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
- 11 Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- 12 Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

Name, title, address and telephone number of the person(s) responsible for preparing this MEPA Checklist. \

Terri Walters
Parks Operation Supervisor
Montana Fish, Wildlife & Parks
2300 Lake Elmo Drive
Billings, MT 59105
(406) 247-2955
Email: twalters@state.mt.us

PART III MEPA CONCLUSION SECTION

The proposed projects are in accordance with the Pictograph Cave State Park Management Plan formally adopted by Fish, Wildlife and Parks in 2003. The plan was developed through the guidance of an interdisciplinary team of interested public. The Management Plan has a 10 year horizon. Completing these projects during 2003-2004 will move the site towards the stated vision and will contribute to the overall integrity of the site in an appropriate timeline.

Pictograph Cave State Park Vision

In 2012, Pictograph Cave, well managed and protected by Montana Fish, Wildlife and Parks, will provide a safe experience whereby:

- Visitors of all ages become engaged in the past and learn the stories of previous occupants.
- Visitors can see rock art images, and understand the site's archaeological significance.
- Each visitor is touched by the past in a setting with few sights and sounds of the modern world.
- Natural geologic processes are evident and explained.
- Trails and roads make the park easily accessible to the community.
- The Park is linked to other heritage and recreation attractions in the Billings area.